

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing:

23 November 2000 (23.11.00)

International application No.:

PCT/US00/12721

Applicant's or agent's file reference:

42002-000026

International filing date:

09 May 2000 (09.05.00)

Priority date:

13 May 1999 (13.05.99)

Applicant:

BROOKNER, George, M.

1. The designated Office is hereby notified of its election made:



in the demand filed with the International preliminary Examining Authority on:

19 September 2000 (19.09.00)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was



was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer:

J. Zahra

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF RECEIPT OF
RECORD COPY

(PCT Rule 24.2(a))

To:

RECEIVED

AUG 21 2000

YIP, Alex, L.

P.O. Box 670425

Flushing, NY 11367

ETATS-UNIS D'AMERIQUE

PERMAN AND GREEN LLP

Date of mailing (day/month/year) 12 July 2000 (12.07.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 42002-000026	International application No. PCT/US00/12721

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

ASCOM HASLER MAILING SYSTEMS, INC. (for all designated States except US)

BROOKNER, George, M. (for US)

International filing date : 09 May 2000 (09.05.00)

Priority date(s) claimed : 13 May 1999 (13.05.99)

Date of receipt of the record copy
by the International Bureau : 15 June 2000 (15.06.00)

List of designated Offices :

EP : AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

National : CA, US

ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

☒ time limits for entry into the national phase

☒ confirmation of precautionary designations

☒ requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer: V. Gross <i>vg</i>
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

INFORMATION ON TIME LIMITS FOR ENTERING THE NATIONAL PHASE

The applicant is reminded that the "national phase" must be entered before each of the designated Offices indicated in the Notification of Receipt of Record Copy (Form PCT/IB/301) by paying national fees and furnishing translations, as prescribed by the applicable national laws.

The time limit for performing these procedural acts is **20 MONTHS** from the priority date or, for those designated States which the applicant elects in a demand for international preliminary examination or in a later election, **30 MONTHS** from the priority date, provided that the election is made before the expiration of 19 months from the priority date. Some designated (or elected) Offices have fixed time limits which expire even later than 20 or 30 months from the priority date. In other Offices an extension of time or grace period, in some cases upon payment of an additional fee, is available.

In addition to these procedural acts, the applicant may also have to comply with other special requirements applicable in certain Offices. **It is the applicant's responsibility** to ensure that the necessary steps to enter the national phase are taken in a timely fashion. Most designated Offices do not issue reminders to applicants in connection with the entry into the national phase.

For detailed information about the procedural acts to be performed to enter the national phase before each designated Office, the applicable time limits and possible extensions of time or grace periods, and any other requirements, see the relevant Chapters of Volume II of the PCT Applicant's Guide. Information about the requirements for filing a demand for international preliminary examination is set out in Chapter IX of Volume I of the PCT Applicant's Guide.

GR and ES became bound by PCT Chapter II on 7 September 1996 and 6 September 1997, respectively, and may, therefore, be elected in a demand or a later election filed on or after 7 September 1996 and 6 September 1997, respectively, regardless of the filing date of the international application. (See second paragraph above.)

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

CONFIRMATION OF PRECAUTIONARY DESIGNATIONS

This notification lists only specific designations made under Rule 4.9(a) in the request. It is important to check that these designations are correct. Errors in designations can be corrected where precautionary designations have been made under Rule 4.9(b). The applicant is hereby reminded that any precautionary designations may be confirmed according to Rule 4.9(c) before the expiration of 15 months from the priority date. If it is not confirmed, it will automatically be regarded as withdrawn by the applicant. There will be no reminder and no invitation. Confirmation of a designation consists of the filing of a notice specifying the designated State concerned (with an indication of the kind of protection or treatment desired) and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.

REQUIREMENTS REGARDING PRIORITY DOCUMENTS

For applicants who have not yet complied with the requirements regarding priority documents, the following is recalled.

Where the priority of an earlier national, regional or international application is claimed, the applicant must submit a copy of the said earlier application, certified by the authority with which it was filed ("the priority document") to the receiving Office (which will transmit it to the International Bureau) or directly to the International Bureau, before the expiration of 16 months from the priority date, provided that any such priority document may still be submitted to the International Bureau before that date of international publication of the international application, in which case that document will be considered to have been received by the International Bureau on the last day of the 16-month time limit (Rule 17.1(a)).

Where the priority document is issued by the receiving Office, the applicant may, instead of submitting the priority document, request the receiving Office to prepare and transmit the priority document to the International Bureau. Such request must be made before the expiration of the 16-month time limit and may be subjected by the receiving Office to the payment of a fee (Rule 17.1(b)).

If the priority document concerned is not submitted to the International Bureau or if the request to the receiving Office to prepare and transmit the priority document has not been made (and the corresponding fee, if any, paid) within the applicable time limit indicated under the preceding paragraphs, any designated State may disregard the priority claim, provided that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity to furnish the priority document within a time limit which is reasonable under the circumstances.

Where several priorities are claimed, the priority date to be considered for the purposes of computing the 16-month time limit is the filing date of the earliest application whose priority is claimed.

PATENT COOPERATION TREATY 770 P00 9542 -W0

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

RECEIVED

SEP 25 2000

PERMAN AND GREEN LLP

To:

YIP, Alex, L.
P.O. Box 670425
Flushing, NY 11367
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 28 July 2000 (28.07.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 42002-000026	
International application No. PCT/US00/12721	
International publication date (day/month/year) Not yet published	
International filing date (day/month/year) 09 May 2000 (09.05.00)	
Priority date (day/month/year) 13 May 1999 (13.05.99)	
Applicant ASCOM HASLER MAILING SYSTEMS, INC. et al	

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
13 May 1999 (13.05.99)	60/133,921	US	30 June 2000 (30.06.00)

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Khemais BRAHMI

Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

RECEIVED

SEP 29 2000

GREEN, Clarence
Perman & Green, LLP
425 Post Road
Fairfield, CT 06430
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 20 September 2000 (20.09.00)	IMPORTANT NOTIFICATION International filing date (day/month/year) 09 May 2000 (09.05.00)
Applicant's or agent's file reference 42002-000026	
International application No. PCT/US00/12721	

1. The following indications appeared on record concerning: <input type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input checked="" type="checkbox"/> the agent <input type="checkbox"/> the common representative		
Name and Address YIP, Alex, L. P.O. Box 670425 Flushing, NY 11367 United States of America	State of Nationality	State of Residence
	Telephone No. (646) 458-2340	
	Facsimile No. (646) 458-2341	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning: <input checked="" type="checkbox"/> the person <input type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
Name and Address GREEN, Clarence Perman & Green, LLP 425 Post Road Fairfield, CT 06430 United States of America	State of Nationality	State of Residence
	Telephone No. (646) 458-2340	
	Facsimile No. (646) 458-2341	
	Teleprinter No.	
3. Further observations, if necessary:		
4. A copy of this notification has been sent to: <input checked="" type="checkbox"/> the receiving Office <input type="checkbox"/> the designated Offices concerned <input type="checkbox"/> the International Searching Authority <input type="checkbox"/> the elected Offices concerned <input type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other:		

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Jean-Marie McAdams Telephone No.: (41-22) 338.83.38
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770 P00 9542 - WO/EGV

From the INTERNATIONAL BUREAU

PCT

NOTICE INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

GREEN, Clarence
Perman & Green, LLP
425 Post Road
Fairfield, CT 06430
ETATS-UNIS D'AMERIQUE

RECEIVED

DEC 05 2000

PERMAN AND GREEN LLP

Date of mailing (day/month/year) 23 November 2000 (23.11.00)		
Applicant's or agent's file reference 42002-00		IMPORTANT NOTICE
International application No. PCT/US00/12721	International filing date (day/month/year) 09 May 2000 (09.05.00)	
		Priority date (day/month/year) 13 May 1999 (13.05.99)
Applicant ASCOM HASLER MAILING SYSTEMS, INC. et al		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:

US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

CA,EP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 23 November 2000 (23.11.00) under No. WO 00/70503

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer J. Zahra
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY 70P009542-60

PCT

INFORMATION CONCERNING ELECTED
OFFICES NOTIFIED OF THEIR ELECTION

(PCT Rule 61.3)

From the INTERNATIONAL BUREAU

To:

GREEN, Clarence
 Perman & Green, LLP
 425 Post Road
 Fairfield, CT 06430
 ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 23 November 2000 (23.11.00)		
Applicant's or agent's file reference 42002-000026		IMPORTANT INFORMATION
International application No. PCT/US00/12721	International filing date (day/month/year) 09 May 2000 (09.05.00)	
		Priority date (day/month/year) 13 May 1999 (13.05.99)
Applicant ASCOM HASLER MAILING SYSTEMS, INC. et al		

1. The applicant is hereby informed that the International Bureau has, according to Article 31(7), notified each of the following Offices of its election:

EP :AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE
 National :CA,US

2. The following Offices have waived the requirement for the notification of their election; the notification will be sent to them by the International Bureau only upon their request:

None

3. The applicant is reminded that he must enter the "national phase" **before the expiration of 30 months from the priority date** before each of the Offices listed above. This must be done by paying the national fee(s) and furnishing, if prescribed, a translation of the international application (Article 39(1)(a)), as well as, where applicable, by furnishing a translation of any annexes of the international preliminary examination report (Article 36(3)(b) and Rule 74.1).

Some offices have fixed time limits expiring later than the above-mentioned time limit. For detailed information about the applicable time limits and the acts to be performed upon entry into the national phase before a particular Office, see Volume II of the PCT Applicant's Guide.

The entry into the European regional phase is postponed **until 31 months from the priority date** for all States designated for the purposes of obtaining a European patent.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer: J. Zahra Telephone No. (41-22) 338.83.38
--------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------

The demand must be filed directly with the competent International Preliminary Examining Authority if two or more Authorities are competent, with the one chosen by the applicant. The name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/ US

PCT

CHAPTER II

DEMAND

under Article 31 of the Patent Cooperation Treaty:
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only

Identification of IPEA	Date of receipt of DEMAND
------------------------	---------------------------

Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION		Applicant's or agent's file reference 770P009542WO
International application No. PCT/US00/12721	International filing date (day/month/year) 09 May 2000 (09.05.00)	(Earliest) Priority date (day/month/year) 13 May 1999 (13.05.99)

Title of invention
TECHNIQUE FOR SECURE REMOTE CONFIGURATION OF A SYSTEM

Box No. II APPLICANT(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Ascom Hasler Mailing Systems, Inc.
19 Forest Parkway
Shelton, Connecticut 06484-0904
United States of America

Telephone No.:

(203) 926-1087

Facsimile No.:

Teleprinter No.:

State (that is, country) of nationality:

US

State (that is, country) of residence:

US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Brookner, George M.
11 Surrey Drive
Norwalk, Connecticut 06851
United States of America

State (that is, country) of nationality:

US

State (that is, country) of residence:

US

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

State (that is, country) of nationality:

State (that is, country) of residence:

☐ Further applicants are indicated on a continuation sheet.

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The following person is ☒ agent ☐ common representative
 and ☐ has been appointed earlier and represents the applicant(s) also for international preliminary examination.
☒ is hereby appointed and any earlier appointment of (an) agent(s) /common representative is hereby revoked.
☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address: *(Family name followed by given name; for a legal entity, full official designation.
The address must include postal code and name of country.)*

Green, Clarence A.
 Perman & Green, LLP
 425 Post Road
 Fairfield, Connecticut 06430
 United States of America

Telephone No.:
 (203) 259-1800

Facsimile No.:
 (203) 255-5170

Teleprinter No.:

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION**Statement concerning amendments: ***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filed.

the description ☒ as originally filed
☐ as amended under Article 34

the claims ☒ as originally filed
☐ as amended under Article 19 (together with any accompanying statement)
☐ as amended under Article 34

the drawings ☒ as originally filed
☐ as amended under Article 34

2. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.

3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). *(This check-box may be marked only where the time limit under Article 19 has not yet expired.)*

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English

- ☒ which is the language in which the international application was filed.
☐ which is the language of a translation furnished for the purposes of international search.
☐ which is the language of publication of the international application.
☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.

Box No. V ELECTION OF STATES

The applicant hereby elects all eligible States *(that is, all States which have been designated and which are bound by Chapter II of the PCT)*

excluding the following States which the applicant wishes not to elect:

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- | | | |
|-------------------------------------------------------------------------|---|--------|
| 1. translation of international application | : | sheets |
| 2. amendments under Article 34 | : | sheets |
| 3. copy (or where required, translation) of amendments under Article 19 | : | sheets |
| 4. copy (or, where required, translation) of statement under Article 19 | : | sheets |
| 5. letter | : | sheets |
| 6. other (<i>specify</i>) | : | sheets |

For International Preliminary Examining Authority use only

received not received

- | | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

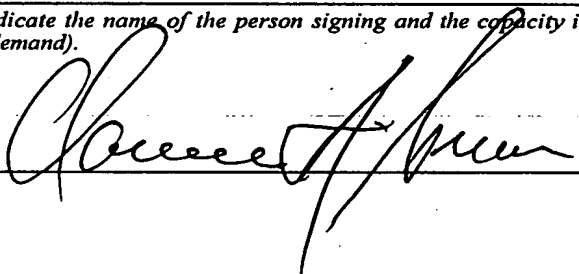
The demand is also accompanied by the item(s) marked below:

- | | |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> fee calculation sheet | 4. <input type="checkbox"/> statement explaining lack of signature |
| 2. <input type="checkbox"/> separate signed power of attorney | 5. <input type="checkbox"/> nucleotide and or amino acid sequence listing in computer readable form |
| 3. <input type="checkbox"/> copy of general power of attorney, reference number, if any: | 6. <input checked="" type="checkbox"/> other (<i>specify</i>): Check for payment of fees |

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

Clarence A. Green
(Agent)



For International Preliminary Examining Authority use only

- Date of actual receipt of DEMAND:
- Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):
- ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.
 ☐ The applicant has been informed accordingly.
- ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.
- ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

For International Bureau use only

Demand received from IPEA on:

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: CLARENCE A. GREEN
PERMAN & GREEN, LLP
425 POST ROAD
FAIRFIELD, CONNECTICUT 06430

PCT

SEP 17 2001

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year)

13 SEP 2001

Applicant's or agent's file reference

770P009542WO

IMPORTANT NOTIFICATION

International application No.

PCT/US00/12721

International filing date (day/month/year)

09 MAY 2000

Priority Date (day/month/year)

13 MAY 1999

Applicant

ASCOM HASLER MAILING SYSTEMS, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

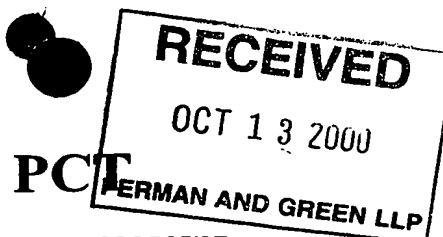
ELLA COLBERT

Telephone No. (703) 308-7064

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
CLARENCE A. GREEN
PERMAN & GREEN, LLP
425 POST ROAD
FAIRFIELD, CT 06430



NOTIFICATION OF RECEIPT
OF DEMAND BY COMPETENT INTERNATIONAL
PRELIMINARY EXAMINING AUTHORITY

(PCT Rules 59.3(e) and 61.1(b), first sentence
and Administrative Instructions, Section 601(a))

Date of mailing
(day/month/year)

06 OCT 2000

Applicant's or agent's file reference
42002-000026

IMPORTANT NOTIFICATION

International application No.

PCT/US00/12721

International filing date (day/month/year)

09 MAY 00

Priority date (day/month/year)

13 MAY 99

Applicant
ASCOM HASLER MAILING SYSTEMS, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority considers the following date as the date of receipt of the demand for international preliminary examination of the international application:

19 SEPTEMBER 2000 (19.09.00)

2. That date of receipt is:

- ☒ the actual date of receipt of the demand by this Authority (Rule 61.1(b)).
☐ the actual date of receipt of the demand on behalf of this Authority (Rule 59.3(e)).
☐ the date on which this Authority has, in response to the invitation to correct defects in the demand (Form PCT/IPEA/404), received the required corrections.

3. ☐ **ATTENTION:** That date of receipt is **AFTER** the expiration of 19 months from the priority date. Consequently, the election(s) made in the demand does (do) not have the effect of postponing the entry into the national phase until 30 months from the priority date (or later in some Offices) (Article 39(1)). Therefore, the acts for entry into the national phase must be performed within 20 months from the priority date (or later in some Offices) (Article 22). For details, see the *PCT Applicant's Guide*, Volume II.

- ☐ (If applicable) This notification confirms the information given by telephone, facsimile transmission or in person on:

4. Only where paragraph 3 applies, a copy of this notification has been sent to the International Bureau.

Name and mailing address of the IPEA/
Assistant Commissioner for Patent
Box PCT
Washington, D.C. 20231 Attn:RO/US
Facsimile No. 703-305-3230

Authorized officer

Felicia Lawrence
PCT Operations - IAPB Team 1

Telephone No. (703) 305-3675 (703) 305-3230 (FAX)

INTERNATIONAL COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: CLARENCE A. GREEN
PERMAN & GREEN, LLP
425 POST ROAD
FAIRFIELD, CONNECTICUT 06430

PCT

WRITTEN OPINION

(PCT Rule 66)

MAR 27 2001

Date of Mailing
(day/month/year)

23 MAR 2001

Applicant's or agent's file reference

770P009542WO

REPLY DUE

within TWO months
from the above date of mailing

International application No.

PCT/US00/12721

International filing date (day/month/year)

09 MAY 2000

Priority date (day/month/year)

13 MAY 1999

International Patent Classification (IPC) or both national classification and IPC
Please See Supplemental Sheet.

Applicant

ASCOM HASLER MAILING SYSTEMS, INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 13 SEPTEMBER 2001

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

ELLA COLBERT

Telephone No. (703) 308-7064

I. Basis of the opinion**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed
- ☒ the description:
pages 1-9 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the claims:
pages 10-15 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the drawings:
pages 1-2 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the
description: NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

WRITTEN OPINION

International application No.

PCT/US00/12721

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims	8-14, 16-18, 26-30 and 33-35	YES
	Claims	1-7, 15, 19-25, and 32	NO
Inventive Step (IS)	Claims	NONE	YES
	Claims	1-35	NO
Industrial Applicability (IA)	Claims	1-35	YES
	Claims	NONE	NO

2. citations and explanations

Claims 1-7, 15, 19-25, and 32 lacks novelty under PCT Article 33(2) as being anticipated by US 5,841,865 (SUDIA) 24 November 1998.

As per claims 15, 19, and 32, Sudia teaches, a memory for storing records associated with the devices (col. 13, lines 52-65), and input element for receiving from a selected device a request for configuration through the communications network with the request including coded information (col. 13, lines 49-52), a processor responsive to the request for locating a record associated with the selected device, and verifying an identity of the selected device based on the coded information with the record including second information concerning a selected configuration (col. 13, lines 37-48), and an output element for providing through the communications network to the selected device information objects for realization of the selected configuration based on the second information when the identity of the selected device is verified (col. 13, lines 49-52). As per claim 19, Sudia further teaches, storing records associated with the devices (col. 15, lines 15-25) and receiving from a selected device a request for configuration through a communications network with the request including code information (col. 15, lines 28-49 and col. 16, lines 46-55).

As per claims 2 and 20, Sudia teaches, the coded information including encrypted information concerning the identity of the selected device (col. 2, lines 46-66).

As per claims 3 and 21, Sudia teaches, the encrypted information concerns a serial number of the selected device (col. 3, lines 19-52 and col. 8, lines 18-24).

As per claims 4 and 22, Sudia teaches, the encrypted information is encrypted in accordance with a public key algorithm (col. 27, lines 13-33).

As per claims 5 and 23, Sudia teaches, the coded information including a digital signature resulting from cryptographically (Continued on Supplemental Sheet.)

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): G06F 17/30 and US Cl.: 707/1; 380/28, 29, 37, 277, 280, 281, 282, 284; 354/550; 705/401; 713/200.

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):
signing at least part of the request (col. 27, lines 40-55).

As per claims 6 and 24, Sudia teaches, the information objects include software components (col. 11, 35-44).

As per claims 7 and 25, Sudia teaches, the information objects include data (col. 4, lines 58-66).

Claims 8-14, 16-18, 26-31, and 33-35 lacks an inventive step under PCT Article 33(3) as being obvious over US 5,841,865(SUDIA).

As per claims 8 and 26, Sudia teaches, storage for storing a cryptographic element (col. 16, lines 12-32), a processor for generating a request including coded information for verification by the server of an identity of the apparatus, the coded information being generated using the cryptographic element (col. 16, lines 46-55), and a memory (col. 13, lines 53-65). Sudia did not teach an interface for receiving information objects for configuring the apparatus from the server through the communications network when the identity of the apparatus is verified by the server or a loader for directing the information objects to be loaded in the memory in accordance with a plan, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have an interface for receiving information of the objects for configuring the from the server through the communications network and a loader for directing the information to the objects to be loaded in the memory because the interface connects to the server at a point so they can work with each other in receiving information objects and the loader loads the executable code of a program into memory to direct the information objects to be loaded.

As per claims 9, 16, 27, and 33, Sudia teaches, the cryptographic element includes a private key (col. 4, lines 5-19).

As per claims 10 and 28, Sudia did not teach, the request is automatically generated on an initial power up of the apparatus, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the request automatically generated on an initial power up because the sender cryptographic device uses an algorithm to encrypt the message when loaded with the cipher key for the session of the communication.

As per claims 11 and 29, Sudia teaches, coded information including a digital signature resulting from cryptographically signing at least part of the request (col. 27, lines 40-55).

As per claim 12, Sudia did not teach a franking system but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a franking system because this system has the signature of the sender on a franked mail serving in place of a postage stamp and unmistakably evident.

As per claims 13 and 30, Sudia teaches, the information objects include software components (col. 11, lines 35-44).

As per claims 14 and 31, Sudia teaches, the information objects include data (col. 4, lines 58-66).

As per claims 17 and 34, Sudia teaches, the first identifier includes a serial number of the selected device (col. 3, lines 19-52 and col. 8, lines 18-24).

As per claims 18 and 35, Sudia teaches, the first information is encrypted in accordance with a public key algorithm (col. 27, lines 13-33).

WRITTEN OPINION

International application No.

PCT/US00/12721

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 11

Claims 1-35 meets the criteria set out in PCT Article 33(4), because this system can be used to remotely configure a secure communications network such as in a government organization where information is considered business sensitive.

----- NEW CITATIONS -----

NONE

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

To:

ALEX L. YIP
P.O. BOX 670425
FLUSHING NY 11367

NOTIFICATION OF THE INTERNATIONAL APPLICATION NUMBER AND OF THE INTERNATIONAL FILING DATE

(PCT Rule 20.5(c))

Applicant's or agent's file reference 42002-000026		IMPORTANT NOTIFICATION	
International application No. PCT/US00/12721	International filing date (day/month/year) 09 MAY 00	Date of mailing (day/month/year) 12 JUN 2000	
Priority date (day/month/year) 13 MAY 99			
Applicant ASCOM HASLER MAILING SYSTEMS, INC.			
Title of the invention TECHNIQUE FOR SECURE REMOTE CONFIGURATION OF A SYSTEM			

1. The applicant is hereby notified that the international application has been accorded the international application number and the international filing date indicated above.

2. The applicant is further notified that the record copy of the international application: 12 JUN 2000

- ☒ was transmitted to the International Bureau on _____
- ☐ has not yet been transmitted to the International Bureau for the reason indicated below and a copy of this notification has been sent to the International Bureau**:
- ☐ because the necessary national security clearance has not yet been obtained.
- ☐ because (reason to be specified): _____

* The International Bureau monitors the transmittal of the record copy by the receiving Office and will notify the applicant (with Form PCT/IB/301) of its receipt. Should the record copy not have been received by the expiration of 14 months from the priority date, the International Bureau will notify the applicant (Rule 22.1(c)).

3. FOREIGN TRANSMITTAL LICENSE INFORMATION

Completed by: *[Signature]*

- ☐ Additional license for foreign transmittal not required. This subject matter is covered by a license already granted on the equivalent U.S. national application. Refer to that license for information concerning its scope.
- ☐ License for foreign transmittal not required. 37 CFR 5.11(e)(1) or 37 CFR 5.11(e)(2). However, a license may be required for additional subject matter. See 37 CFR 5.15(b).
- ☒ Foreign transmittal license granted. 35 U.S.C. 184; 37 CFR 5.11 on 5-30-00 :
(date)
- ☒ 37 CFR 5.15(a) ☐ 37 CFR 5.15(b)

Name and mailing address of the receiving Office
Assistant Commissioner for Patents
Box PCT
Washington, D.C. 20231
Facsimile No. _____

Attn: RO/US

Authorized officer
Felicia Lawrence
PCT Operations - IAPD Team 1
Telephone No. (703) 305-3675 (703) 305-3230 (FAX)

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

PCT

To:

ALEX L. YIP
P.O. BOX 670425
FLUSHING NY 11367

NOTIFICATION CONCERNING PAYMENT OF PRESCRIBED FEES

(PCT Rules 14, 15 and 16 and Administrative
Instructions, Sections 304(a) and (b) and 323(b))

Applicant's or agent's file reference 42002-000026		Date of mailing (day/month/year) 12 JUN 2000
International application No. PCT/US00/12721		<div style="display: flex; justify-content: space-between;"> <div> PAYMENT DUE See item 3 for time limits </div> <div> International filing date/Date of receipt (day/month/year) 09 MAY 00 </div> <div> Priority date (day/month/year) 13 MAY 99 </div> </div>
Applicant ASCOM HASLER MAILING SYSTEMS, INC.		

1. The applicant is hereby notified that this receiving Office has received:

- ☒ the payment of all the prescribed fees, and
 ☐ an overpayment, which will be refunded in due course.
☐ no or insufficient payment of the prescribed fees and the applicant is hereby invited to pay the balance due, as summarized under item 2, within the time limit(s) indicated under item 3.

2. Fees and payment calculation:

Total fees payable	Amount paid	=	Balance
--------------------	-------------	---	---------

- ☐ The details of the calculation are given in the Annex.

3. Time limit(s) for payment and amount(s) payable (Rules 14.1, 15.4 and 16.1(f)):

- ☐ within ONE MONTH from the date of receipt of the international application (for the transmittal fee (if any), the search fee, the basic fee and the designation fee). The amount payable for each fee is the amount applicable on the date of receipt of the international application.
☐ within ONE YEAR from the priority date (only for the designation fee and only if this time limit expires later than the above time limit).
 --If the designation fee is paid within one month from the date of receipt of the international application, the amount payable is the amount applicable on that date of receipt.
 --If the designation fee is paid within one year from the priority date but later than one month from the date of receipt of the international application, the amount payable is the amount applicable on the date of payment. The receiving Office should be consulted for the applicable amount.
☐ within 16 MONTHS from the priority date (only for the fee for priority document). The applicant's attention is drawn to the fact that the request made by the applicant under Rule 17.1(b) will be considered not to have been made unless the fee is paid within that time limit.

4. Additional observations (if necessary):

- ☐ The search copy will not be transmitted to the International Searching Authority until the search fee is paid (therefore the start of the international search will be delayed)(Rule 23.1(a) and (b)).

Name and mailing address of the receiving Office Assistant Commissioner for Patents Box PCT Washington, D.C. 20231 Facsimile No.	Authorized officer <div style="text-align: center;"> Felicia Lawrence PCT Operations - IAPD Team 1 </div> Telephone N(703) 305-3675 (703) 305-3230 (FAX)
----------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

PATENT COOPERATION TREATY

From the RECEIVING OFFICE

To:
ALEX L. YIP
P.O. BOX 670425
FLUSHING, NY 11367

PCT

INVITATION TO CORRECT DEFECTS IN THE INTERNATIONAL APPLICATION

(PCT Articles 3(4)(i) and 14(1) and Rule 26)

Applicant's or agent's file reference <p style="text-align: center;">42002-000026</p>	Date of mailing <i>(day/month/year)</i> <p style="text-align: center; font-size: 1.2em;">12 JUN 2000</p>
International application No. <p style="text-align: center;">PCT/US00/12721</p>	REPLY DUE within <u>1</u> month / days from the above date of mailing
International filing date <i>(day/month/year)</i> <p style="text-align: right;">09 MAY 00</p>	
Applicant ASCOM HASLER MAILING SYSTEMS, INC.	

1. The applicant is hereby invited, within the time limit indicated above, to correct the defects in the international application as filed, the defects specified on the attached
 - ☒ Annex A
 - ☐ Annex B1 (*text matter of the international application as filed*)
 - ☒ Annex C1 (*drawings of the international application as filed*)
2. The applicant is hereby invited, within the time limit indicated above, to correct the defects in the translation of the international application furnished under Rule 12.3, the defects specified on the attached
 - ☐ Annex A
 - ☐ Annex B2 (*text matter of the translation of the international application*)
 - ☐ Annex C2 (*drawings of the translation of the international application*)

Additional observations (if necessary):

HOW TO CORRECT THE DEFECTS?

Correction must be submitted by filing a replacement sheet embodying the correction and a letter accompanying the replacement sheet, which shall draw attention to the difference between the replaced sheet and the replacement sheet. A correction may be stated in a letter only if it is of such a nature that it can be transferred from the letter to the record copy without adversely affecting the clarity and direct reproducibility of the sheet onto which the correction is to be transferred (Rule 26.4(a)).

ATTENTION

Failure to correct the defects will result in the international application being considered withdrawn by this receiving Office (see Rule 26.5 for further details).

A copy of this invitation and any attachments has been sent to the International Bureau ☒ and the International Searching Authority.

Name and mailing address of the receiving Office Assistant Commissioner for Patent Box PCT Washington, D.C. 20231 Attn: RO/US Facsimile No. 703-305-3230	Authorized officer <p style="text-align: center;">Felicia Lawrence</p> <p style="text-align: center;">PCT Operations - IAPD Team 1</p> <p style="text-align: center;">(703) 305-3675 (703) 305-3230 (FAX)</p> Telephone No.
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The receiving Office has found the following defects in the international application as filed:

1. As to **signature*** of the international application (Rules 4.15 and 90.4), the request:
- a. ☐ is not signed.
 - b. ☐ is not signed by all applicants.
 - c. ☐ is not accompanied by the statement referred to in the check list in Box No. VIII of the request explaining the lack of the signature of an applicant for the designation of the United States of America.
 - d. ☒ is signed by what appears to be an agent/common representative but
 - ☒ the international application is not accompanied by a power of attorney appointing him.
 - ☐ the power of attorney accompanying the international application was not signed by all the applicants.
 - e. ☐ other (*specify*):

* All applicants must sign, including inventors if they are also applicants (e.g. where the United States of America is designated).

2. As to indications concerning the **applicant**, the request (Rules 4.4 and 4.5):

- a. ☐ does not properly indicate the applicant's name (*specify*):
- b. ☐ does not indicate the applicant's address.
- c. ☐ does not properly indicate the applicant's address (*specify*):
- d. ☐ does not indicate the applicant's nationality.
- e. ☐ does not indicate the applicant's residence.
- f. ☐ other (*specify*):

3. As to the **language** of certain elements of the international application, other than the description and claims (Rules 12.1(c) and 26.3ter(a) and (c)):

- a. ☐ the **request** is not in a language which is both a language accepted by this receiving Office and a language of publication, which is (are):
- b. ☐ the **text matter of the drawings** is not in the language in which the international application is to be published, which is:
- c. ☐ the **abstract** is not in the language in which the international application is to be published, which is:

4. The **title** of the invention:

- a. ☐ is not indicated in Box No. I of the request (Rule 4.1(a)).
- b. ☐ is not indicated at the top of the first sheet of the description (Rule 5.1(a)).
- c. ☐ as appearing in Box No. I of the request is not identical with the title heading the description (Rule 5.1(a)).

5. As to the **abstract** (Rule 8):

- ☐ the international application does not contain an abstract.

The receiving Office has found that, with regard to the presentation of the drawings of the international application as filed, the physical requirements are not complied with to the extent that compliance therewith is necessary for:

1. ☒ reasonably uniform international publication (Rules 11 and 26.3(a)(i)) (defects to be specified):

Sheets containing drawings:

- a. ☐ the sheets do not admit of direct reproduction.
- b. ☐ the sheets are not free from creases, cracks, folds.
- c. ☐ one side of the sheets is not left unused.
- d. ☐ the paper of the sheets is not flexible/strong/white/smooth/non-shiny/durable.
- e. ☐ the drawings do not commence on a new sheet.
- f. ☐ the sheets are not connected as prescribed (Rule 11.4(b)).
- g. ☐ the sheets are not A4 size (29.7cm x 21cm).
- h. ☒ the minimum margins on the sheets are not as prescribed **FIG 3**
(top: 2.5cm; left side: 2.5cm; right side: 1.5cm; bottom: 1cm).
- i. ☐ the file reference number indicated on the sheets does not appear in the left-hand corner of the sheets, within 1.5cm of the top of the sheets.
- j. ☐ the file reference number exceeds the maximum of 12 characters.
- k. ☐ the sheets are not free from frames around usable or used surfaces.
- l. ☒ the sheets are not numbered in consecutive Arabic numerals (e.g. 1/3, 2/3, 3/3). **ALL**
- m. ☐ the sheet numbers are not centered at the top or bottom of the sheets.
- n. ☐ the sheet numbers are in the margin (see h. above for the size of the margins).
- o. ☐ the sheets contain alterations/overwritings/interlineations/too many erasures.
- p. ☐ the sheets contain photocopy marks.

Drawings (Rule 11.13):

- a. ☐ do not admit of direct reproduction.
- b. ☐ contain unnecessary text matter.
- c. ☐ contain words so placed as to prevent translation without interference with lines thereof.
- d. ☒ are not executed in durable black color; the lines are not uniformly thick and well-defined. **ALL**
- e. ☐ contain cross-sections not properly hatched.
- f. ☐ would not be properly distinguishable in reduced reproduction.
- g. ☐ contain scales not represented graphically.
- h. ☒ contain numbers, letters and reference lines lacking simplicity and clarity. **ALL**
- i. ☐ contain lines drafted without the aid of drafting instruments.
- j. ☐ contain disproportionate elements of a figure not necessary for clarity.
- k. ☐ contain numbers and letters of height less than 0.32 cm.
- l. ☐ contain letters not conforming to the Latin, and where customary, Greek alphabets.
- m. ☐ contain figures on two or more sheets which form a single complete figure but which are not able to be assembled without concealing parts thereof.
- n. ☐ contain figures which are not properly arranged and clearly separated.
- o. ☐ contain different figures not numbered in consecutive Arabic numerals.
- p. ☐ contain different figures not numbered independent of the numbering of the sheets.
- q. ☐ are not restricted to reference signs mentioned in the description.
- r. ☐ do not contain reference signs that are mentioned in the description.
- s. ☐ contain the same feature denoted by different reference signs.
- t. ☐ are not arranged in an upright position, clearly separated from one another.
- u. ☐ are not presented sideways with the top of the figures at the left side of the sheets.

2. ☐ satisfactory reproduction (Rules 11 and 26.3(b)(i)).

Further observations (if necessary):

NEW DRAWINGS REQUIRED

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum) 42002-000026

Box No. I TITLE OF INVENTION

Technique for Secure Remote Configuration of a System

Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

Ascom Hasler Mailing Systems, Inc.
19 Forest Parkway
Shelton, Connecticut 06484-0904
UNITED STATES OF AMERICA

☐ This person is also inventor.

Telephone No.
(203) 926-1087

Facsimile No.

Teleprinter No.

State (that is, country) of nationality:
U.S.

State (that is, country) of residence:
U.S.

This person is applicant for the purposes of: ☐ all designated States ☒ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

BROOKNER, George M.
11 Surrey Drive
Norwalk, Connecticut 06851
UNITED STATES OF AMERICA

This person is:

☐ applicant only
☒ applicant and inventor
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:
U.S.

State (that is, country) of residence:
U.S.

This person is applicant for the purposes of: ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box

☐ Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: ☒ agent ☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

YIP, Alex L.
P.O. Box 670425
Flushing, New York 11367
UNITED STATES OF AMERICA

Telephone No.
(646) 458-2340

Facsimile No.
(646) 458-2341

Teleprinter No.

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No.V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

Regional Patent

- ☐ **AP ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☐ **EA Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
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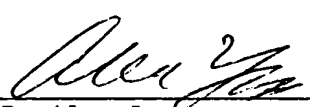
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International application No.

PCT/US00/12721

International filing date (day/month/year)

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Priority date (day/month/year)

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B. ☐ As the above identified application has been accepted for U.S. National processing under the provision of 35 U.S.C. 371 (f) before expiration of the applicable time limit under ☐ PCT Article 22 ☐ PCT Article 39, applicant is reminded that

<input type="checkbox"/> Amendments under PCT Article 19 and/or	<input type="checkbox"/> the International Preliminary Examination Report and its Annexes, if any, under PCT Article 36(3) (a), and (b) and any translation thereof, if applicable, must be submitted to the Patent and Trademark Office as soon as they are available.
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International application No. PCT/US00/12721	International filing date 09 MAY 00	Priority Date Claimed 13 MAY 99
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C. ☒ In order that U.S. National processing may begin, certain items must be received by the DO/EO/US by the expiration of applicable time limit under

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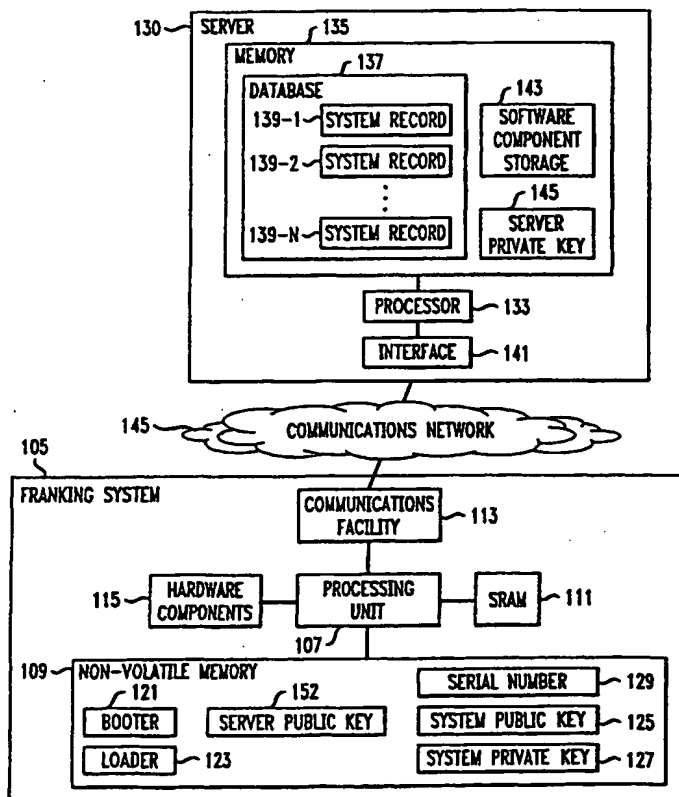
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(21) International Application Number: PCT/US00/12721 (22) International Filing Date: 9 May 2000 (09.05.00) (30) Priority Data: 60/133,921 13 May 1999 (13.05.99) US (71) Applicant (for all designated States except US): ASCOM HASLER MAILING SYSTEMS, INC. [US/US]; 19 Forest Parkway, Shelton, CT 06484-0904 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): BROOKNER, George, M. [US/US]; 11 Surrey Drive, Norwalk, CT 06851 (US). (74) Agents: GREEN, Clarence et al.; Perman & Green, LLP, 425 Post Road, Fairfield, CT 06430 (US).			(81) Designated States: CA, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.

(54) Title: TECHNIQUE FOR SECURE REMOTE CONFIGURATION OF A SYSTEM

(57) Abstract

After a processor (133) controlled system having communications (145) capabilities is delivered to a user in its generic configuration, customization of the system is realized in accordance with the invention by downloading thereto selected information objects, e.g., software components (135) and/or data, from a server. To avoid unauthorized (145) downloading of the selected information objects, certain information in a request for the objects by the system to the server (152) is encrypted and/or cryptographically signed. Such information may be e.g., a serial number (129) identifying the system. If the server succeeds in decrypting the encrypted information and/or authenticating the digital signature, and thereby verifies the identity and legitimacy of the system (139), the server downloads the selected information objects to realize the customization.



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10/009206

Description

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TECHNIQUE FOR SECURE REMOTE CONFIGURATION OF A SYSTEMTechnical Field

The invention relates to a technique for system configuration, and more particularly to a technique for remotely configuring a system through a communications
5 network in a secure manner.

Background of the Invention

Use of processor-controlled (P-C) products, e.g., personal and hand-held computers, wireless
10 information devices, postage franking systems, etc. is ubiquitous. However, people may utilize these P-C products differently to satisfy their individual needs. For that reason, P-C product manufacturers offer different options to customers for them to individualize
15 the products. Typically, when a customer orders a P-C product from a manufacturer, he/she specifies the desired options for the product. In response, the manufacturer starts with a basic pre-assembled system having a generic configuration, and adds the specified options thereto to
20 customize the system. The manufacturer then ships the resulting system to the customer to fulfill the order.

Summary of the Invention

The customization by manufacturers of P-C
25 products described above is beneficial to a customer in that the customer pays only for the product having the configuration specified by him/her, without overspending on some product features which the customer does not need. However, I have identified certain aspects of the
30 prior art practice as being particularly disadvantageous. For example, after selecting a P-C product, a customer needs to wait for the manufacturer customization, which may take a long time because of a backlog. It is

particularly frustrating for a customer after he/she spends much time selecting the desired P-C product in a store and cannot immediately bring home the product because of the need of the manufacturer customization.

5 I have recognized that in the manufacturer customization, the bulk of the time is expended on installing the software options specified by the customer in a basic system having a generic configuration. I have also recognized that most of the P-C products have a
10 modem device therein or provide for similar capabilities for communicating data over a communications network. Thus, in accordance with the invention, the customer may be provided with the basic pre-assembled system having modem capabilities, and on his/her own download the
15 specified software components onto the system from a server to customize the system. Advantageously, by shifting the customization burden onto the customer in accordance with the invention, the customer can be in possession of a P-C product as soon as the purchase
20 thereof is consummated. In addition, the product manufacturer saves on the otherwise labor and time for installing the software options for the customer.

In accordance with the invention, a server is employed for configuring P-C devices through a
25 communications network. Records associated with the devices are stored in the server. On initial power up of one such P-C device, the P-C device automatically generates a request for configuration thereof to the server through the communications network. This request
30 includes coded information resulting from encrypting at least an identifier, e.g., a serial number, identifying the P-C device, or alternatively from cryptographically signing at least part of the request. In response to such a request, the server locates a record associated
35 with the P-C device, and verifies the identity of the P-C device based on the coded information. The record includes second information concerning a device

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configuration specified by the customer. Only when the identity of the P-C device is verified, does the server provide through the communications network to the P-C device information objects, e.g., software components and/or data, for realization of the specified configuration based on the second information.

Brief Description of the Drawing

Further objects, features and advantages of the invention will become apparent from the following detailed description taken in conjunction with the accompanying drawing, in which:

Fig. 1 illustrates an arrangement for configuring a system in accordance with the invention;

Fig. 2 illustrates the format of a system record stored in a server in the arrangement of Fig. 1; and

Fig. 3 illustrates a routine for providing software components from the server to the system to realize a specified system configuration.

Detailed Description

Fig. 1 illustrates an arrangement embodying the principles of the invention in which a processor-controlled (P-C) system may be customized through a communications network. By way of example, this system is illustratively a franking system, numerically denoted 105, for generating postage indicia which serve as proof of payment of postage.

In accordance with the invention, system 105 when delivered to a user has a generic configuration, which includes processing unit 107 comprising one or more conventional processors, non-volatile memory 109, static random access memory (SRAM) 111, communications facility 113 which includes a modem device or similar circuitry or network card, and necessary hardware components 115 for carrying out the generation of postage indicia. This

generic configuration allows subsequent system customization by the user to satisfy his/her individual needs. For example, in accordance with the invention, the user later may on his/her own integrate specified
5 software options into system 105 to customize same. Thus, the manufacturer of system 105 in this instance does not customize the system for the user as in prior art. As a result, system 105 advantageously can be delivered to the user soon after the user places the
10 order thereof. At the same time, the manufacturer saves on the otherwise labor and time for customizing system 105 for the user.

Server 130, which may be administered and maintained by the manufacturer of system 105, provides
15 through communications network 145 the specified software options to realize the user customization in accordance with the invention. Communications network 145 may be, e.g., the Internet, a telephone network or other public or private network. Server 130 includes processor 133,
20 memory 135, and interface 141 for establishing a communication connection with the systems served thereby, e.g., system 105. When the user orders system 105 with certain software and hardware options selected by the user, the manufacturer causes system 105 having a generic
25 configuration and the selected hardware options delivered to the user. At the same time, the manufacturer causes server 130 to create a record therein, registering the selected software options and/or hardware options of system 105. Without loss of generality, in this instance
30 the software options but not the hardware options are registered in such a record. To that end, database 137 is maintained by server 130 in memory 135, which contains system records 139-1 through 139-N, associated with N different systems served by server 130, respectively,
35 where N represents an integer greater than zero. Without loss of generality, let's assume here that system record 139-1 is associated with system 105.

Fig. 2 illustrates the format of a generic system record denoted 200. As shown in Fig. 2, record 200 includes field 203 containing a system public key for decrypting messages from the system associated with the record in a manner described below, field 205 containing a serial number assigned to the system for identifying same, and field 207 contains identifiers indicating the software options selected by the user.

When the user receives the package containing system 105 having the generic configuration, and selected hardware components for realizing the hardware options specified by the user, the user connects the selected hardware components to system 105 pursuant to the instructions provided by the manufacturer. To realize the software options specified by the user, programs such as booter 121 including basic input/output system (BIOS) functions, and loader 123 are provided and pre-stored in non-volatile memory 109 in system 105. On initial power up of system 105 and connection thereof to network 145 through communication facility 113, booter 121 is invoked which performs conventional system start-up functions which include, among others, causing loader 123 to be copied into SRAM 111 at a specified location to which a program vector points. Directed by the program vector, processing unit 107 executes the code of loader 123 in SRAM 111.

Instructed by the code of loader 123, unit 107 causes communications facility 113 to establish a communication connection with server 130 through network 145. Unit 107 transmits a configuration request for software components from server 130 to realize the specified software options. However, in accordance with an aspect of the invention, security measures are implemented to ensure that system 105 is a legitimate system to receive the software components from server 130. For example, a cryptographic methodology may be implemented to encrypt and/or cryptographically sign

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certain information in the request from system 105. The success by server 130 in decrypting the resulting encrypted information and/or authenticating the resulting digital signature verifies the identity and legitimacy of system 105. One such cryptographic methodology is the RSA methodology, named after its developers, Rivest, Shamir and Adleman. For details on the RSA methodology, one may refer to: R. Rivest et al., "A Method for Obtaining Digital Signatures and Public Key Cryptosystems," Communications of the ACM, Vol. 21, No. 2, February 1978. The RSA methodology involves a public key algorithm which uses a private key and a public key for data encryption. Unlike a private key which is securely protected from the public, a public key can be published and made known to the public. The keys for the RSA algorithm are generated mathematically, and are computational inverses to each other. The success of the RSA methodology depends on the use of very large numbers for the keys.

Thus, for example, in implementing the RSA methodology here, a key pair consisting of system public key 125 and system private key 127 are assigned to system 105, which are pre-stored in memory 109. In addition, as mentioned before a serial number, denoted 129, is assigned to system 105 to identify same, which is pre-stored in memory 109. In this instance, the aforementioned configuration request by system 105 includes information concerning (a) system public key 125 and (b) serial number 129 which is encrypted using system private key 127 in accordance with the RSA methodology.

Upon receiving the configuration request through interface 141, as indicated at step 302 in Fig. 3, processor 133 at step 305 searches database 137 for any system record having field 203 thereof matching system public key 125 in the request. If no such record is found, processor 133 at step 308 denies the configuration request. Otherwise, if any such record

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(e.g., record 139-1 associated with system 105 in this instance) is found, processor 133 at step 311 decrypts the encrypted serial number in the request using received system public key 125 or alternatively the matching
5 system public key in field 203 of the record, in accordance with the RSA methodology. Processor 133 at step 314 determines whether the resulting serial number matches that in field 205 of the record. If they do not match, processor 133 at step 317 denies the configuration
10 request. Otherwise, if they match, processor 133 at step 320 reads from field 207 of the record the identifiers indicating the software options specified by the user for installation in system 105. Based on such identifiers, processor 133 at step 323 retrieves from software
15 component storage 143 those software components for realizing the specified software options. To ensure secure transmission, and prevent unauthorized use, of such software components to system 105, processor 133 at step 326 encrypts the software components using server
20 private key 145, in accordance with the RSA methodology. Processor 133 at step 329 transmits the encrypted software components to system 105 through the established communication connection.

After receiving the encrypted software
25 components, processing unit 107 in system 105 utilizes server public key 152, which corresponds to server private key 145 and is pre-stored in memory 109, to decrypt the received software components. The resulting software components, which contain software
30 identifications (IDs) in their headers, are then loaded into SRAM 111, in accordance with a program vector table. This program vector table, e.g., in the form of a memory map, specifies the memory locations in SRAM 111 for the respective software components identified by their
35 software IDs, and thus the order of execution of these software components. As processing unit 107 executes the downloaded software components, the specified software

options are realized.

The foregoing merely illustrates the principles of the invention. It will thus be appreciated that those skilled in the art will be able to devise numerous other
5 arrangements which embody the principles of the invention and are thus within its spirit and scope.

For example, the invention is disclosed in the context of an initial configuration of system 105 after it is delivered to the user. However, it is apparent
10 from the disclosure heretofore that the inventive methodology is equally applicable to a re-configuration of the system after the initial configuration. In that case, loader 123 can be re-invoked to download additional software components from server 130 to modify the initial
15 configuration.

Moreover, in the disclosed embodiment, software components are downloaded to system 105 from server 130 to realize desired system options. It is apparent that selected data, e.g., those concerning the user and/or
20 his/her preferences, may also be downloaded to the system to customize same.

In addition, in the disclosed embodiment, server 130 maintains system record 200 for each system served thereby. The information in field 207 of record
25 200 enables server 130 to keep track of the current configuration of the system. Server 130 may also rely on the software IDs of the downloaded software components to keep track of the current configuration of the system. Such software IDs may contain version numbers of the
30 respective downloaded software components and may also form part of record 200. When any new versions of the downloaded software components become available, with the knowledge of the current version number of each downloaded software component in the system, server 130
35 can effectively inform the user of such new versions for upgrading purposes. Moreover, the software IDs identifying the downloaded software components currently

installed in the system may also be cataloged and stored in the system itself. In that case, a re-configuration of the system can be accomplished in a more secure manner by downloading additional software components together
5 with an authorization code from server 130. As described in PCT International Publication No. WO 99/66422, published on December 23, 1999, such an authorization code may be derived by server 130 from, among others, the serial number of the system and new software IDs
10 identifying the additional software components. After receiving the additional software components including the software IDs in their headers, and the authorization code, the system independently generates an authorization code based on the received software IDs and the serial
15 number stored in the system. Only if the generated authorization code corresponds to the received authorization code, is the system allowed to install the additional software components therein.

Further, in the disclosed embodiment, the
20 configuration request by system 105 includes information, e.g., the serial number identifying system 105, which is encrypted. However, as mentioned before, such information may be cryptographically signed using the RSA or other cryptographic methodology such as the digital
25 signature algorithm (DSA) or Elliptic Curve algorithm, instead. In that case, the authentication of the resulting digital signature verifies the identity of system 105.

Finally, server 130 and system 105 are
30 disclosed herein in a form in which various functions are performed by discrete functional blocks. However, any one or more of these functions could equally well be embodied in an arrangement in which the functions of any one or more of those blocks or indeed, all of the
35 functions thereof, are realized, for example, by one or more appropriate memories, and/or appropriately programmed processors.

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Claims

1 Apparatus for serving a plurality of devices through a communications network, the apparatus

5 comprising:

a memory for storing a plurality of records associated with the devices, respectively;

an input element for receiving from a selected device a request for configuration thereof through the
10 communications network, the request including coded information;

a processor responsive to the request for locating a record associated with the selected device, and verifying an identity of the selected device based on the coded
15 information, the record including second information concerning a selected configuration; and

an output element for providing through the communications network to the selected device information objects for realization of the selected configuration
20 based on the second information when the identity of the
~~selected device is verified.~~

2. The apparatus of claim 1 wherein the coded information including encrypted information concerning
25 the identity of the selected device.

3. The apparatus of claim 2 wherein the encrypted information concerns a serial number of the selected device.

30

4. The apparatus of claim 2 wherein the encrypted information is encrypted in accordance with a public key algorithm.

35 5. The apparatus of claim 1 wherein the coded information including a digital signature resulting from cryptographically signing at least part of the request.

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6. The apparatus of claim 1 wherein the information objects include software components.

7. The apparatus of claim 1 wherein the
5 information objects include data.

8. Apparatus configurable by a server through a communications network, the apparatus comprising:
storage for storing a cryptographic element;
10 a processor for generating a request which includes therein coded information for verification by the server of an identity of the apparatus, the coded information being generated using the cryptographic element;
an interface for receiving information objects for
15 configuring the apparatus from the server through the communications network when the identity of the apparatus is verified by the server;
a memory; and
a loader for directing the information objects to be
20 loaded in the memory in accordance with a predetermined plan.

9. The apparatus of claim 8 wherein the cryptographic element includes a private key.
25

10. The apparatus of claim 8 wherein the request is automatically generated on an initial power up of the apparatus.

30 11. The apparatus of claim 8 wherein the coded information including a digital signature resulting from cryptographically signing at least part of the request.

12. The apparatus of claim 8 comprising a franking
35 system.

13. The apparatus of claim 8 wherein the

information objects include software components.

14. The apparatus of claim 8 wherein the information objects include data.

5

15. Apparatus for serving a plurality of devices through a communications network, the apparatus comprising:

a memory for storing a plurality of records
10 associated with the devices, respectively;

an input element for receiving from a selected device a request for configuration thereof through the communications network, the request including a cryptographic element, and first information concerning a
15 first identifier identifying the selected device, the first information being encrypted;

a processor for selecting a record based on the cryptographic element, the selected record including a second identifier and configuration information, the
20 processor determining whether the second identifier corresponds to the first identifier obtained by decrypting the first information using the cryptographic element; and

an output element for causing the selected device to
25 be configured based on the configuration information when it is determined that the second identifier corresponds to the first identifier.

16. The apparatus of claim 15 wherein the
30 cryptographic element includes a public key.

17. The apparatus of claim 15 wherein the first identifier includes a serial number of the selected device.

35

18. The apparatus of claim 15 wherein the first information is encrypted in accordance with a public key

algorithm.

19. A method for use in an apparatus for serving a plurality of devices through a communications network, the method comprising:
- storing a plurality of records associated with the devices, respectively;
 - receiving from a selected device a request for configuration thereof through the communications network, the request including coded information;
 - in response to the request, locating a record associated with the selected device;
 - verifying an identity of the selected device based on the coded information, the record including second information concerning a selected configuration; and
 - providing through the communications network to the selected device information objects for realization of the selected configuration based on the second information when the identity of the selected device is verified.

20. The method of claim 19 wherein the coded information including encrypted information concerning the identity of the selected device.

21. The method of claim 20 wherein the encrypted information concerns a serial number of the selected device.

22. The method of claim 20 wherein the encrypted information is encrypted in accordance with a public key algorithm.

23. The method of claim 19 wherein the coded information including a digital signature resulting from cryptographically signing at least part of the request.

24. The method of claim 19 wherein the information objects include software components.

25. The method of claim 19 wherein the information
5 objects include data.

26. A method for use in an apparatus configurable
by a server through a communications network, the
apparatus including a memory, the method comprising:
10 storing a cryptographic element;
generating a request which includes therein coded
information for verification by the server of an identity
of the apparatus, the coded information being generated
using the cryptographic element;
15 receiving information objects for configuring the
apparatus from the server through the communications
network when the identity of the apparatus is verified by
the server; and
loading the information objects in the memory in
20 accordance with a predetermined plan.

27. The method of claim 26 wherein the
cryptographic element includes a private key.

28. The method of claim 26 wherein the request is
25 automatically generated on an initial power up of the
apparatus.

29. The method of claim 26 wherein the coded
30 information including a digital signature resulting from
cryptographically signing at least part of the request.

30. The method of claim 26 wherein the information
objects include software components.
35

31. The method of claim 26 wherein the information
objects include data.

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32 A method for use in an apparatus for serving a plurality of devices through a communications network, the method comprising:

5 storing a plurality of records associated with the devices, respectively;

receiving from a selected device a request for configuration thereof through the communications network, the request including a cryptographic element, and first information concerning a first identifier identifying the
10 selected device, the first information being encrypted;

selecting a record based on the cryptographic element, the selected record including a second identifier and configuration information;

determining whether the second identifier
15 corresponds to the first identifier obtained by decrypting the first information using the cryptographic element; and

causing the selected device to be configured based on the configuration information when it is determined
20 that the second identifier corresponds to the first identifier.

33. The method of claim 32 wherein the cryptographic element includes a public key.
25

34. The method of claim 32 wherein the first identifier includes a serial number of the selected device.

30 35. The method of claim 32 wherein the first information is encrypted in accordance with a public key algorithm.

FIG. 1

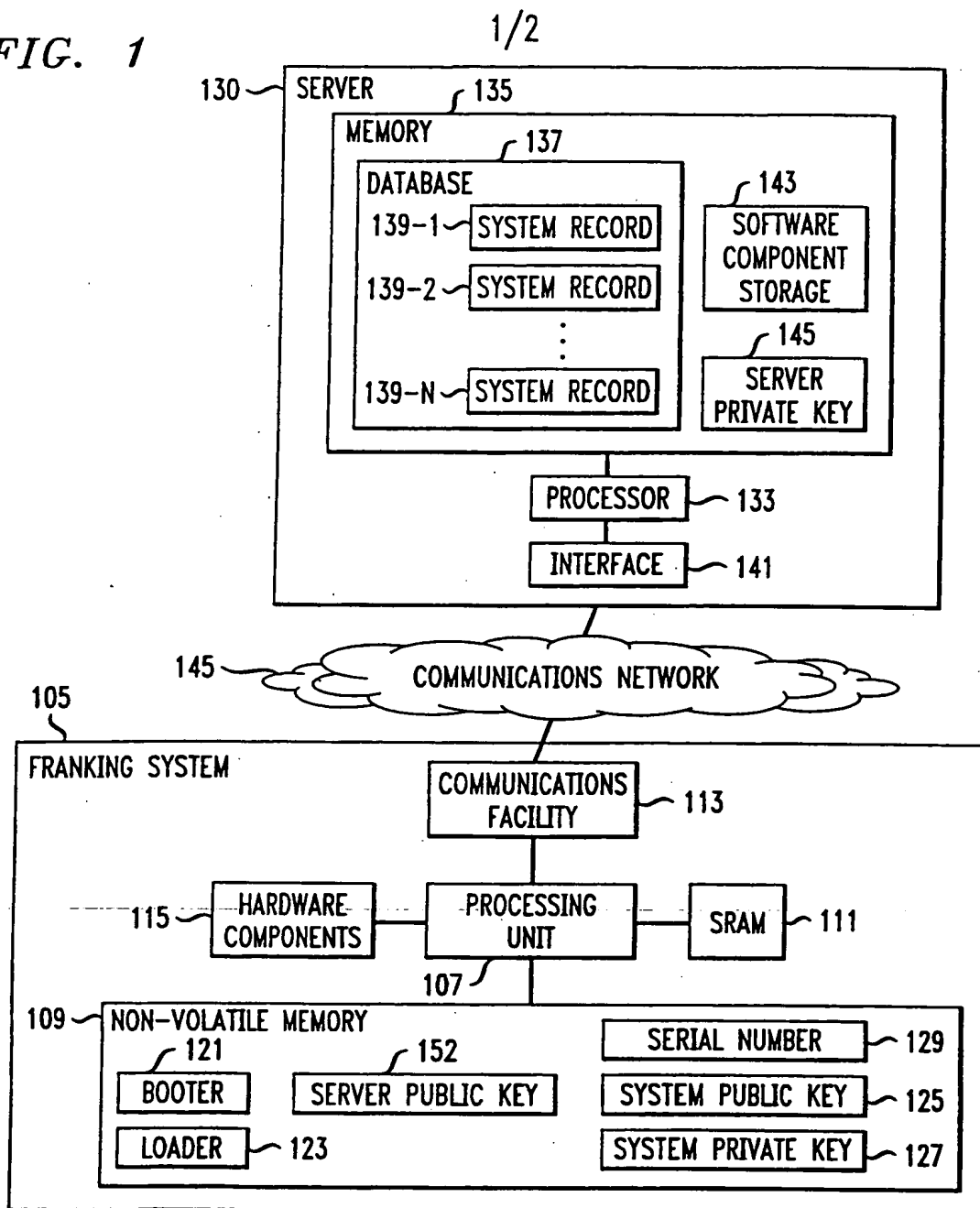
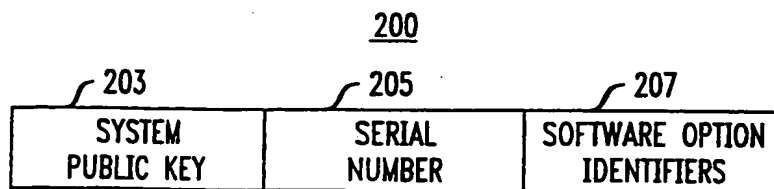
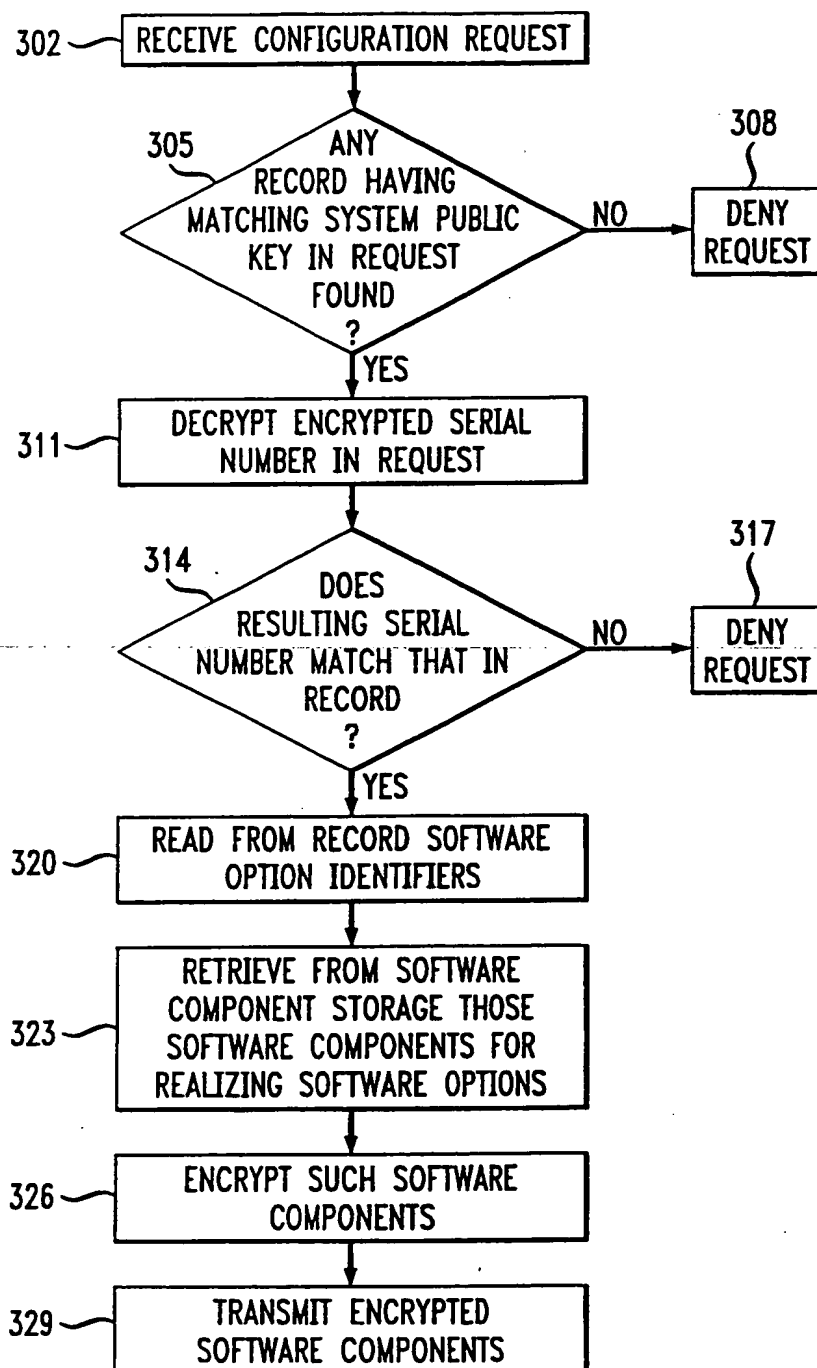


FIG. 2



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FIG. 3



A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/30

US CL : Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 707/1: 380/28, 29, 37, 277, 280, 281, 282, 284, 354/550; 705/401; 713/200.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used):
Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N
Y	US 5,142,577 A (PASTOR) 25 August 1992, col. 1, lines 1-68, col. 2, lines 1-2, col. 5, lines 5-15, col. 6, lines 3-24, col. 8, lines 3-18, col. 9, lines 34-68, and col. 10, lines 1-51.	1-35
Y	US 5,841,865 A (SUDIA) 24 November 1998, col. 13, lines 35-67, col. 14, lines 1-3 and lines 32-67, col. 15, lines 1-25 and lines 49-67, col. 16, lines 1-6 and lines 34-59, col. 18, lines 2-15, col. 20, lines 30-65, col. 21, lines 59-67, col. 22, lines 1-12, col. 27, lines 12-67, col. 28, lines 1-3 and lines 22-57, col. 35, lines 40-60, col. 39, lines 3-39 and lines 65-67, col. 40, lines 1-28, col. 41, lines 50-67, col. 42, lines 1-15 and lines 49-67, and col. 43, lines 1-13.	1-35



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents	*T* Later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) on which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

11 JULY 2000

Date of mailing of the international search report

23 AUG 2000

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/12721

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,898,154 A (ROSEN) 27 April 1999, col. 13, lines 65-67, col. 14, lines 1-67, col. 17, lines 3-16, col. 21, lines 34-42, col. 22, lines 41-57, col. 37, lines 46-67, col. 38, lines 1-3, col. 39, lines 16-24 and 40-50, col. 41, lines 35-55, and col. 43, lines 1-3.	1-35

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/12721

A. CLASSIFICATION OF SUBJECT MATTER: US CL :

707/1; 380/28, 29, 37, 277, 280, 281, 282, 284; 354/550; 705/401; 713/200.

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

WEST

Search terms: records, elements, communications network, objects, encryption, serial number, public key, digital signature, private key, franking.